

Page 1

FILE 'CAPLUS' ENTERED AT 20:56:17 ON 13 MAY 2003

L1 STRUCTURE UPLOADED
S L1

FILE 'REGISTRY' ENTERED AT 20:56:36 ON 13 MAY 2003

L2 933 S L1 SSS FULL

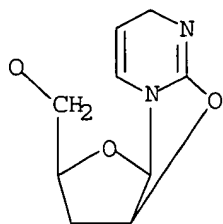
FILE 'CAPLUS' ENTERED AT 20:56:37 ON 13 MAY 2003

L3 1151 S L2 SSS FULL

L4 5 L3 AND (ALUMINUM?)

=> d que stat l3

L1 STR



Structure attributes must be viewed using STN Express query preparation.

L2 933 SEA FILE=REGISTRY SSS FUL L1

L3 1151 SEA FILE=CAPLUS ABB=ON PLU=ON L2

=> d l4 total ibib abs

L4 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:688247 CAPLUS

DOCUMENT NUMBER: 133:222975

TITLE: '2'-Substituted RNA preparation

INVENTOR(S): Reese, Colin Bernard; Song, Quanlai

PATENT ASSIGNEE(S): Avecia Limited, UK

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

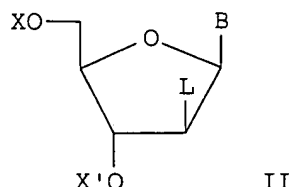
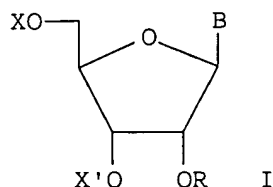
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056747	A1	20000928	WO 2000-GB965	20000315
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1165584	A1	20020102	EP 2000-909534	20000315
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

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IE, SI, LT, LV, FI, RO
 JP 2002540117 T2 20021126 JP 2000-606608 20000315
 PRIORITY APPLN. INFO.: GB 1999-6328 A 19990319
 WO 2000-GB965 W 20000315
 OTHER SOURCE(S): CASREACT 133:222975; MARPAT 133:222975
 GI



AB A process for the preparation of RNA I wherein X, and X' are each independently H or a protecting group, B is a base; R is an alkyl, alkoxyalkyl, alkenyl, or alkynyl group, is provided, which comprises the reaction a compound of formula II with a compound of formula Al(OR)₃ wherein R is as defined above, under substantially anhydrous conditions and L is a leaving group. Thus, 2'-O-(2-methoxyethyl)cytidine was prepared from uridine via etherification with **aluminum** and 2-methoxyethanol.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:296184 CAPLUS

DOCUMENT NUMBER: 130:325337

TITLE: Conversion of uridine into 2'-O-(2-methoxyethyl)uridine and 2'-O-(2-methoxyethyl)cytidine

AUTHOR(S): Legorburu, Urtzi; Reese, Colin B.; Song, Quanlai

CORPORATE SOURCE: Department of Chemistry, King's College London, London, WC2R 2LS, UK

SOURCE: Tetrahedron (1999), 55(17), 5635-5640

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Reaction between **aluminum** 2-methoxyethoxide and 2,2'-anhydro-1-β-D-arabinofuranosyluracil gives 2'-O-(2-methoxyethyl)uridine in high yield. This compound is converted into 2'-O-(2-methoxyethyl)cytidine in good yield.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:759665 CAPLUS

DOCUMENT NUMBER: 130:95775

TITLE: Synthesis of tritium-labeled diazines and their analogs

AUTHOR(S): Myasoedov, Nykolai F.; Sidorov, Georgy V.

CORPORATE SOURCE: Institute of Molecular Genetics, RAS, Moscow, 123182, Russia

SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals (1998), 41(11), 993-1003

CODEN: JLCRD4; ISSN: 0362-4803

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Some 40 diazines have been tritiated to high specific activities using a variety of labeling procedures such as catalytic hydrogen isotope exchange both in solution and the solid state, reduction and hydration. For purine derivs. it is shown that the solid state catalytic isotope exchange reaction is the most effective method. With pyrimidines this reaction is accompanied by a parallel hydration reaction of the 5,6- double bond to form a complex mixture of products. Identification and quant. estimation of these products has been accomplished in terms of the reaction condition (solvent, nature of catalyst). Key Words: tritium, catalytic hydrogenation, purines, pyrimidines, nucleosides, nucleotides, phytohormones, and terminators of DNA synthesis.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:631009 .CAPLUS

DOCUMENT NUMBER: 123:257215

TITLE: Stereoselective synthesis of 1'-C-branched uracil nucleosides from uridine

AUTHOR(S): Haraguchi, Kazuhiro; Itoh, Yoshiharu; Tanaka, Hiromichi; Miyasaka, Tadashi

CORPORATE SOURCE: School Pharmaceutical Sciences, Showa University, Tokyo, 142, Japan

SOURCE: Nucleosides & Nucleotides (1995), 14(3-5), 417-20
CODEN: NUNUD5; ISSN: 0732-8311

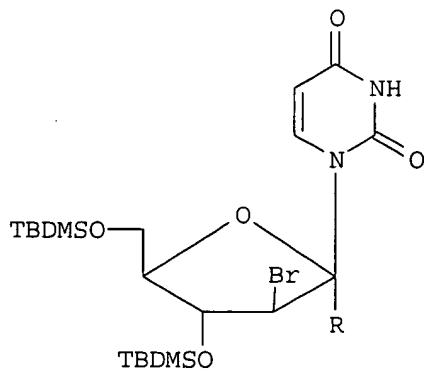
PUBLISHER: Dekker

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 123:257215

GI



AB Stereoselective electrophilic addition (bromo-pivaloyloxylolation) to 1-[3,5-bis-O-(tert-butyldimethylsilyl)-2-deoxy-D-erythro-pent-1-enofuranosyl]uracil gave the corresponding nucleosides, e.g. I (R = OPiv), when combined with nucleophilic substitution using organo-silicon or organo-aluminum reagents, provides a new and highly divergent C-C bond forming method at the anomeric position to give I (R =

CH₂CH=CH₂) .

L4 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1990:99113 CAPLUS

DOCUMENT NUMBER: 112:99113

TITLE: Michael addition reactions of α,β -ene-3'-phenylselenone of uridine. New synthesis of 2',3'-dideoxy-ribo-aziridino-, 2',3'-dideoxy-2',3'-ribo-cyclopropyl-, and 2,2'-O-anhydro-3'-deoxy-3'-aminouridine derivatives

AUTHOR(S): Wu, J. C.; Chattopadhyaya, J.

CORPORATE SOURCE: Biomed. Cent., Univ. Uppsala, Uppsala, S-751 23, Swed.

SOURCE: Tetrahedron (1989), 45(14), 4507-22

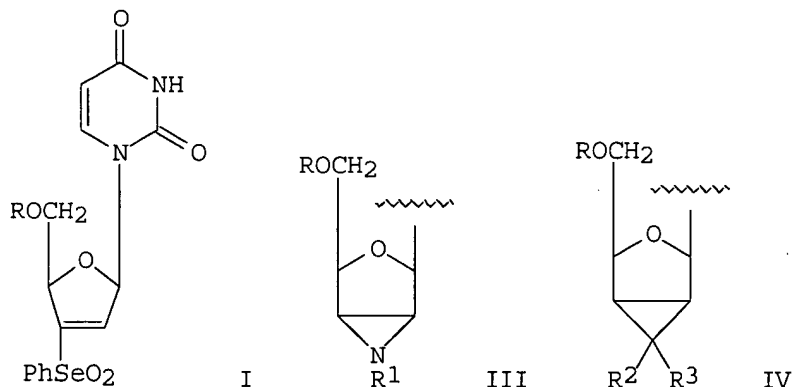
CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 112:99113

GI



AB A high-yielding synthesis of 1-[5'-O-(4-monomethoxytrityl)-2',3'-dideoxy-3'-phenylselenonyl- β -D-glycero-pent-2'-enofuranosyl]uracil [I; R = monomethoxytrityl; (II)] is described starting from 5'-O-(4-monomethoxytrityl)-2',3'-O-anhydro- β -D-lyxofuranosyl uracil. II can be easily deprotected to I (R = H). The synthetic utilities of I as synthetic equivalent of a dication [CH₂⁺-CH₂⁺] have been demonstrated from the fact that they act as Michael acceptors and undergo conjugate addition reactions at C-2' with ammonia, methylamine, benzylamine and glycine Me ester, followed by a direct intramol. SN₂ type displacement reaction at C-3' in the adduct, to give various 2',3'-dideoxy-ribo-aziridino uridines III (R₁ = H, Me, PhCH₂, CH₂CO₂Me) while dimethylamine, pyrrolidine, and morpholine give 2,2'-O-anhydro-3'-deoxy-3'-substituted-aminouridines. Carbon-nucleophiles such as sodium Me malonate and conjugate bases of nitromethane and acetophenone upon reaction with II provides a convenient access to 2',3'-dideoxy-2',3'-cyclopropyl(bicyclo[3.1.0] system) derivs. of uridine IV (R₂ = H, R₃ = NO₂, COPh; R₂ = R₃ = CO₂Me) while a reaction of II with methylacetoacetate gives an unusual 2',3'-fused furano(bicyclo[3.3.0] system) derivative. The methodol. described herein constitute a new general approach to functionalize the 2'- and 3'-carbons of β -D-nucleosides simultaneously. All new 2',3'-disubstituted nucleosides with free 5'-hydroxyl group are potential inhibitors of

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HIV-specific reverse transcriptase.